



## 1/16 DIN Advanced, Full Featured PID Temperature Controller

- Dual Display, 4 digit, 7 segment LED
- TC/RTD Input, Analog Input
- ON/OFF, PID, PID Autotune
- C/F degrees selectable
- Heat Cool PID
- Ramp Soak
- Soft Start
- 1/16 DIN (48 x 48 mm)

### SPECIFICATIONS

<b>DIGITS</b>	4 digit, 7 segment LED Dual Display Height of Upper display: 0.3785" Height of Lower display: 0.2720"
<b>LED INDICATIONS</b>	Relay On, Alarm, Manual Mode, Tune
<b>INPUTS</b>	Thermocouple (J,K,T,R,S,C,E,B,N,L,U,W) Platinel II, RTD (Pt100) DC Analog Inputs (-5 to 56mv, 0 to 10v, 0 to 20 ma)
<b>SAMPLING TIME</b>	200 ms
<b>INPUT FILTER (FTC)</b>	0.2 to 10.0 sec
<b>RESOLUTION</b>	1/0.1 deg for TC/RTD only Fixed 1 deg resolution for R&S Type TC) Decimal point position selectable: 1/0.1/0.01/0.001 for analog input
<b>TEMPERATURE UNIT:</b>	C/F deg selectable
<b>INDICATION ACC:</b>	For TC inputs 0.25% of F.S. $\pm 1^\circ$ R&S type TC inputs 0.5% of F.S. $\pm 2$ deg (20 min of warm up time for TC inputs) For RTD inputs 0.1% of F.S. $\pm 1$ deg For Analog Input $\pm 0.5\%$ , $\pm 1$ digit (F.S. = Full Scale)

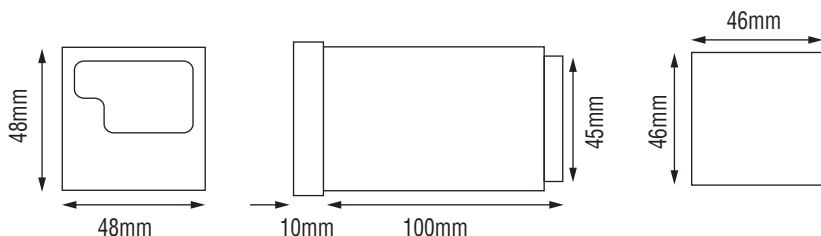
<b>CONTROL 1 OUTPUT SPECIFICATIONS</b>	Contact Rating (SPST): 5a @ 230VAC / 30VDC resistive SSR Drive (Voltage Pulse): 18VDC 20ma Current: 0/4 to 20ma dc (loop impedance 500 ohms max Voltage: 0 to 5/10 VDC (load resistance 10K ohms min)
<b>ALARM 2 OUTPUT SPECIFICATION</b>	Contact Rating (SPST): 5a @ 230VAC / 30VDC resistive SSR DRIVE: 12VDC 20ma
<b>FUNCTIONAL SPECIFICATION</b>	Control Action: PID, On-Off Proportional Band (P): 0.0 to 400.0 deg Integral Time (I): 0 to 3600 sec Derivative Time (D): 0 to 200 sec Cycle Time: 0.1 to 100.0 sec Hysteresis Width: 0.1 to 99.9 deg Manual Reset Value: -99.9 to 99.9 deg
<b>HEAT COOL PID</b>	Control Action: PID Cycle Time: 0.1 to 100 sec Proportional Gain: 0.0 to 400.0 deg Deadband: Programmable from setpoint low limit to setpoint high limit
<b>ALARMS</b>	Modes: Deviation high/low, Absolute high/low, band, sensor break Hysteresis: 0.1 to 99.9 deg
<b>RAMP SOAK</b>	Ramp Range: 1 to 9999 deg/hr. Soak Time: 0 to 1440 min Soft Start Time: 0 to 999 min.
<b>SUPPLY VOLTAGE</b>	85 to 270V AC/DC (50/60 Hz)
<b>POWER CONSUMPTION</b>	6VA max @ 230 VAC
<b>RETRANSMISSION</b>	Current: 0/4 to 20ma DC (loop impedance 500 ohms max) Voltage: 0 to 5/10V DC (load resistance 10k ohms min) Update Rate: 100msec
<b>SERIAL COMMUNICATION</b>	Interface Standard: RS485 Communication Address: 1 to 99, maximum of 32 units per line Transmission mode: Half duplex Transmission protocol: MODBUS RTU Transmission distance: 500 m maximum Transmission speed: 9600, 4800, 1200, 600, 300 bits/sec.
<b>TEMPERATURE</b>	Operating: 0 to 50°C (32 to 122°F) Storage: -20 to 75°C (-4 to 167°F)
<b>HUMIDITY (NON CONDENSING)</b>	95% RH
<b>WEIGHT:</b>	6.4 oz.
<b>PROTECTION LEVEL</b>	IP65 for faceplate

**COMPLIANCE**

IEC/EN 61326 (EMI/EMC)

IEC/EN 61010 Revision 3 2010 Edition (Safety)

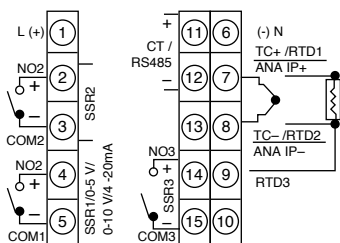
UL 61010 Revision 3 2010 Edition (Safety)

**DIMENSIONS**

CURus Cable Size (AWG): 16-13

Stud Hole for Lug (inch): 0.137

Tightening Torque (lb-inch): 7

**TERMINAL CONNECTIONS****ORDERING INFORMATION**

PART NO.	OUTPUT 1	OUTPUT 2	OUTPUT 3	COMMUNICATION (RS485)	SUPPLY VOLTAGE
ATC500000100	Relay	Relay	Relay		85-270V AC/DC
ATC500000400	Relay	Relay	Relay	Yes	85-270V AC/DC
ATC500010500	Relay	12V DC SSR	12V DC SSR	Yes	85-270V AC/DC
ATC500200100	4-20ma	Relay	Relay		85-270V AC/DC
ATC500200400	4-20ma	Relay	Relay	Yes	85-270V AC/DC
ATC500300100	0-10V	Relay	Relay		85-270V AC/DC
ATC500300400	0-10v	Relay	Relay	Yes	85-270V AC/DC

Note: Other models, options and accessories available. Please consult factory.

